IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: Lyle et al.	:	Before the Examiner: Ghebretinsae, Temesghen
Serial No.: 10/064,269	:	Group Art Unit: 2611
Filing Date: June 27, 2002	:	
Title: INSERTION OF NULL PACKETS TO MITIGATE THE EFFECTS OF INTERFERENCE IN WIRELESS COMMUNICATIONS	:	IBM Corporation Dept. T81/Bldg. 503 P.O. Box 12195 3039 Cornwallis Road Research Triangle Park, NC 27709

REPLY BRIEF UNDER 37 C.F.R. §41.41

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Reply Brief is being submitted in response to the Examiner's Answer dated July 19, 2007, with a two-month statutory period for response set to expire on September 19, 2007.

I. RESPONSE TO EXAMINER'S ARGUMENTS:

A. Response to Examiner's assertion that "transmitting only null packets when hopping to a channel identified as experiencing interference" as recited in claim 1 and similarly in claims 12 and 17, is functionally equivalent to not transmitting on channels experiencing interference, as discussed on page 8 of Examiner's Answer.

As understood by Appellants, the Examiner asserts that Gan's teaching of not transmitting on channels identified as being bad is equivalent to "transmitting only null packets when hopping to a channel identified as experiencing interference," as recited in claim 1 and similarly in claims 12 and 17, since both are directed to avoiding interference. Examiner's Answer, page 8. While not transmitting on a channel may avoid interference, the Examiner is still required to cite a prior art reference that teaches each of the claim limitations in order to establish a *prima facie* case of obviousness. M.P.E.P. §2143. The Examiner must cite a prior art reference that teaches transmitting only null packets when hopping to a channel identified as experiencing interference in order to establish a *prima facie* case of obviousness. M.P.E.P. §2143. Since the Examiner is simply relying upon his own subjective opinion without providing any evidence that a prior art reference teaches transmitting only null packets when hopping to a channel identified as experiencing interference, the Examiner has not established a *prima facie* case of obviousness in rejecting claims 1, 12 and 17. M.P.E.P. §2143.

Further, Appellants contest the assertion that transmitting only null packets when hopping to a channel identified as experiencing interference is not novel in light of the teaching of not transmitting on channels experiencing interference since both are directed to avoiding channel interference. Examiner's Answer, page 8. While both may avoid channel interference, that does not imply that transmitting null packets is not novel. Many different solutions are directed to solving the same problem. Using the Examiner's logic, no one could obtain a patent that was directed to solving a problem previously addressed even if the patent was directed to a new method, system, etc. Obviously, this is not the case. Patents are issued every day on

methods, systems, computer program products, etc., that are directed to solving problems previously addressed.

B. Response to Examiner's assertion that Gan teaches "upon power up of the device, scanning the available channels for interference and identifying channels experiencing interference" as recited in claim 12 and similarly in claim 17, as discussed on page 8 of Examiner's Answer.

As understood by Appellants, the Examiner asserts that column 5, lines 61-67 of Gan teaches "upon power up of the device, scanning the available channels for interference and identifying channels experiencing interference" as recited in claim 12 and similarly in claim 17. Examiner's Answer, page 8. Appellants respectfully traverse.

Gan instead teaches that a novel approach for managing network communications generally involves selecting sets of communications channels based on channel performance. Column 5, lines 61-63. Gan additionally teaches that an initial set of channels is selected based on one or more selection criteria at the start-up of the communications network. Column 5, lines 63-65. Further, Gan teaches that additional sets of channels are then periodically selected to adaptively avoid interference. Column 5, lines 65-67. Hence, Gan teaches selecting sets of communication channels based on one or more selection criteria.

There is no language in the cited passages that teaches upon power up of the device, scanning the available channels for interference and identifying channels experiencing interference. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 12 and 17, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

C. Response to Examiner's assertion that Gan teaches the limitation of claim 2, as discussed on page 5 of Examiner's Answer.

In the final Office Action (1/16/2007), the Examiner had not addressed the limitation of "wherein the scanning step is performed upon the commencement of

data transmission" as recited in claim 2. The Examiner now cites to column 5, lines 63-67 of Gan as teaching the above-cited claim limitation. Examiner's Answer, page 5. Appellants respectfully traverse.

Gan instead teaches that an initial set of channels is selected based on one or more selection criteria at the start-up of the communications network. Column 5, lines 63-65. Further, Gan teaches that additional sets of channels are then periodically selected to adaptively avoid interference. Column 5, lines 65-67.

There is no language in the cited passage that teaches that the scanning step is performed upon the commencement of data transmission. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claim 2, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

D. Response to Examiner's assertion that Gan teaches the limitations of claims 5, 14 and 18, as discussed on page 5 of Examiner's Answer.

In the final Office Action (1/16/2007), the Examiner had not addressed the limitation of "wherein the scanning step is performed when a data throughput rate falls below a predefined value" as recited in claim 5 and similarly in claims 14 and 18. The Examiner now cites to column 6, lines 10-24 of Gan as teaching the above-cited claim limitation. Examiner's Answer, page 5. Appellants respectfully traverse.

Gan instead teaches that in block 114, a set of communications channels to be used is selected based on the channel performance determined in block 110, one or more performance criteria, and one or more selection criteria. Column 6, lines 10-13. Gan further teaches that for example, a communications system may experience interference on channels 3 through 5 from one communications system and on channels 50 through 54 from another communications system. Column 6, lines 13-16. Gan additionally teaches that the channel testing may indicate a high bit error rate (BER) on those channels. Column 6, lines 16-18. Further, Gan teaches that channels may be classified by comparing the test results to the performance criteria. Column 6, lines 18-19. Additionally, Gan teaches that for example, the performance criteria

may be a specified value, or a specified threshold. Column 6, lines 19-21. Further, Gan teaches that if the BER for a channel exceeds the specified threshold, the channel is classified as "good," whereas channels with a BER that does not exceed the specified threshold are classified as "bad." Column 6, lines 21-24. Hence, Gan teaches that a set of communication channels to be used is selected based on the channel performance, one or more performance criteria, and one or more selection criteria.

There is no language in the cited passages that teaches that the scanning step is performed when a data throughput rate falls below a predefined value. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 5, 14 and 18, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

E. Response to Examiner's assertion that Gan teaches the limitations of claims 6, 15 and 19, as discussed on page 5 of Examiner's Answer.

In the final Office Action (1/16/2007, page 3), the Examiner had cited column 17, line 35 – column 18, line 67 of Gan as teaching the limitation of "wherein the scanning step is performed when requested by a user" as recited in claim 6 and similarly in claims 15 and 19. The Examiner now cites to column 6, lines 10-24 of Gan as teaching the above-cited claim limitation. Examiner's Answer, page 5. Appellants respectfully traverse.

Gan instead teaches that in block 114, a set of communications channels to be used is selected based on the channel performance determined in block 110, one or more performance criteria, and one or more selection criteria. Column 6, lines 10-13. Gan further teaches that for example, a communications system may experience interference on channels 3 through 5 from one communications system and on channels 50 through 54 from another communications system. Column 6, lines 13-16. Gan additionally teaches that the channel testing may indicate a high bit error rate (BER) on those channels. Column 6, lines 16-18. Further, Gan teaches that channels may be classified by comparing the test results to the performance criteria. Column

6, lines 18-19. Additionally, Gan teaches that for example, the performance criteria may be a specified value, or a specified threshold. Column 6, lines 19-21. Further, Gan teaches that if the BER for a channel exceeds the specified threshold, the channel is classified as "good," whereas channels with a BER that does not exceed the specified threshold are classified as "bad." Column 6, lines 21-24. Hence, Gan teaches that a set of communication channels to be used is selected based on the channel performance, one or more performance criteria, and one or more selection criteria.

There is no language in the cited passage that teaches that the scanning step is performed when requested by a user. Therefore, the Examiner has not presented a *prima facie* case of obviousness in rejecting claims 6, 15 and 19, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

F. Response to Examiner's citing of column 12, lines 22-32 of Gan, as discussed on page 6 of Examiner's Answer.

The Examiner has cited to column 12, lines 22-32 of Gan on page 6 of Examiner 's Answer. However, the Examiner has not indicated the reason for citing this passage. If the Examiner is asserting that column 12, lines 22-32 of Gan teaches "transmitting only null packets when hopping to a channel identified as experiencing interference," as recited in claim 1 and similarly in claims 12 and 17, then Appellants respectfully traverse.

Gan instead teaches that a master can send a null packet to a slave to ensure that the slave will not transmit at the next slave transmission time slot. Column 12, lines 25-28. Gan further teaches that when a slave receives a null packet, there is no return packet sent from the slave to the master. Column 12, lines 31-32.

There is no language in the cited passage that teaches transmitting only null packets when hopping to a channel. Neither is there any language in the cited passage that teaches transmitting only null packets when hopping to a channel identified as experiencing interference. Therefore, the Examiner has not presented a

prima facie case of obviousness in rejecting claims 1, 12 and 17, since the Examiner is relying upon incorrect, factual predicates in support of the rejection. *In re Rouffet*, 47 U.S.P.Q.2d 1453, 1455 (Fed. Cir. 1998).

G. Other matters raised by the Examiner.

All other matters raised by the Examiner have been adequately addressed above and in Appellants' Appeal Brief and therefore will not be addressed herein for the sake of brevity.

II. CONCLUSION:

For the reasons stated above and in Appellants' Appeal Brief, Appellants respectfully assert that the rejections of claims 1-20 are in error. Appellants respectfully request reversal of the rejections and allowance of claims 1-20.

Respectfully submitted,

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